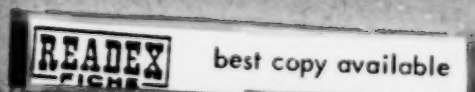


*Community And Migrant
Health Centers*

**Critical Performance
Measures
For Prepayment**

U.S. DEPARTMENT OF
HEALTH & HUMAN SERVICES
Public Health Service
Health Resources and Services Administration

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**Critical Performance
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For Prepayment**

Prepared Under Contract to:
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INTRODUCTION

By any measure, the health care sector (some call it an "industry") is undergoing momentous changes. Some of these changes are necessary to keep pace with ever-evolving medical technology, and still others are needed to stem the ever-rising costs of medical care. Concepts such as cost containment, DRGs, capitation, risk sharing, competition, and managed care now are a fact of everyday life in most health care providing organizations.

Many Community and Migrant Health Centers (C/MHCs) have found it necessary, if not desirable, to participate in prepayment programs of some sort, usually in connection with the State Medicaid program. For most C/MHCs, this requires an adjustment in business orientation, with increased emphasis on financial viability. This, in turn, requires new approaches to management, to information gathering and analysis, and to financial planning and monitoring. At the heart of every C/MHC must be a set of "critical performance measures" for prepayment to help C/MHC managers chart a successful business course and then, more difficult, follow the course successfully.

C/MHCs serve the medically underserved under diverse prepayment arrangements. Thus, it is unlikely that a single set of critical performance measures will entirely meet the needs of every C/MHC. Yet, despite their differences, most C/MHCs share common theoretical and operational characteristics. Thus, it also is likely that a set of basic critical performance measures will be, if not perfectly suited, at least meaningful for every C/MHC with a prepayment component. With some modifications, the set of critical performance measures (CPMs) described in this monograph probably will meet most of a C/MHC's needs for information about its prepayment program.

Thus, the information presented here is not intended to be prescriptive. Rather, based as it is on the collective experience of almost a dozen industry experts, the information is intended to be illustrative, to serve as a point of departure for C/MHC managers struggling to develop useful information to support management of prepayment programs. To assess the applicability of these CPMs to their C/MHC environment, C/MHC managers will have to take into account the size and complexity of the C/MHC and of the capitation program, the particulars of the C/MHC's capitation contract, the availability of manual and automated utilization and accounting information within the C/MHC, and the nature of the C/MHC's cost accounting system.

The material in this monograph is organized into three sections:

- Section 1 introduces the four critical performance reports and describes the audience and purpose of each.
- Section 2 discusses the most salient common features of the four CPM reports. The discussion focuses on the utility of the CPM data and the important ways in which each C/MHC might consider tailoring the CPMs to best suit its management information requirements.
- Section 3 is an explanation of terms that are unique to the prepayment setting or that take on special meaning in a prepayment environment. It includes a discussion and examples of terms such as "capitation" and "per member per year."

The purpose of this monograph is to help C/MHCs begin to cope with and later to thrive in the exciting and challenging capitation environment that now seems a permanent feature of America's health care scene. We hope that the CPMs suggested here will speed C/MHCs toward that purpose.

SECTION 1:
THE CRITICAL PERFORMANCE MEASURES
REPORTS FOR PREPAYMENT PROGRAM
MANAGERS

CAPITATION POPULATION		C/MHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT				
		CAPITATION PROFILE				
		Page One of One				
REPORT #1						
PERIOD COVERED BY REPORT:		CURRENT PERIOD	YEAR TO DATE	CAPITATION TARGET	VARIANCE 2/	
DATE REPORT PREPARED:						
CAPITATION POPULATION	AFDC MEDICAID	Number Of Member Months				
		Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TPL Revenue PMPM				
		Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM Total Cost PMPM				
		Gain Or Loss PMPM				
	OTHER MEDICAID	Number Of Member Months				
		Capitation Revenue PMPM Reinsurance Revenue PMPM COB/TPL Revenue PMPM				
		Administrative Costs PMPM Marketing Costs PMPM Cost Of Care PMPM Total Cost PMPM				
		Gain Or Loss PMPM				
	MEDICARE	Number Of Member Months				
		Capitation Revenue PMPM Reinsurance Revenue PMPM COB/TPL Revenue PMPM				
		Administrative Costs PMPM Marketing Costs PMPM Cost Of Care PMPM Total Cost PMPM				
		Gain Or Loss PMPM				
	COMMERCIAL	Number Of Member Months				
		Premium Revenue PMPM Reinsurance Revenue PMPM COB/TPL Revenue PMPM				
		Administrative Costs PMPM Marketing Costs PMPM Cost Of Care PMPM Total Cost PMPM				
		Gain Or Loss PMPM				

1/ PMPM = per member per month

2/ Variance between YTD and capitation budget

3/ Administrative and marketing costs can be apportioned to each prepaid account on the basis of the member months as a percentage of total member months

CAPITATION PROFILE

Based on information from the C/MHC's accounting system and on basic enrollment data, this report summarizes key financial indicators of prepayment program success or failure. In broad strokes, the CPMs in this report reveal whether the C/MHC is making or losing money under its capitation contract with Medicaid, Medicare, and other prepayment payers (see Section 2.5, Segmenting The Enrollee Population).

The report will be most useful if prepared for each monthly period and on a timely basis (i.e., within 30 days after the close of each month). The principal financial analysis involves a comparison between (1) the results of the current period and for the year to date, expressed in terms of the cost/revenue per member per month¹ and (2) the annual capitation target.

In other words, the principal financial analysis is between the planned and actual business volume, costs, and revenues.

For example, a C/MHC manager might receive a report in month six that shows the following information:

	Current Period	Year To Date	Capitation Target	Variance
Number Of Member Months	75	450	550	-100 -18%
Capitation Revenue	\$61	\$355	\$390	-\$35 -9%

This would tell the C/MHC manager that, thus far into the fiscal year, the capitation program is falling short of its goals for enrollment and for garnering capitation revenue. Unless changes are made in the remaining period, the C/MHC will not reach its overall revenue targets for the year.

The revenue shortfall might be a small problem if capitation costs are under target to the same extent that revenue is under target. However, if the C/MHC is counting on a certain volume of prepayment revenue to help cover fixed costs, a revenue shortfall could be significant even if prepayment costs, per se, are under control.

In addition to displaying capitation revenue, the report includes all other sources of revenue associated with the prepayment program. This may include revenue from reinsurance, coordination of benefits, and third-party liability settlements (See Section 3, Explanation of Terms). Only with a complete accounting for all revenue streams can the profitability of the prepayment program be determined.

On the other side of the financial equation, the report displays information about three cost components: administrative costs allocable to the prepayment program (e.g., on a per-head basis), marketing costs associated with enrolling and maintaining prepayment patients, and the actual costs of care (in-house, referral, and hospitalization, if appropriate).

¹ For a definition of "per member per month" please see page 35.

REPORT #2		C/MHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT INDIVIDUAL PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page One of One			
PRIMARY CARE PROVIDER NAME: PRIMARY CARE PROVIDER NUMBER: PRIMARY CARE PROVIDER CATEGORY: PERIOD COVERED BY REPORT: DATE REPORT PREPARED:		CAPITATION POPULATION:			
		YOUR YEAR-DATE	CATEGORY AVERAGE YEAR-DATE	YOUR CURRENT	CATEGORY AVERAGE CURRENT
PRIMARY CARE (PC) SERVICES	Number Hours Worked In Period Number PCP Encounters In Period Number PCP Encounters/Hour Average Cost Of Professional Services/PCP Encounter				
	Number In-House Lab Procedures/100 PE 1/ Average Cost Per In-House Lab Procedure				
	Number In-House X-Rays/100 PE Average Cost Per In-House X-Ray				
	Number In-House Rx/100 PE Average Cost Per In-House Rx				
	Number Referrals To In-House Specialists/100 PE Average Cost Per Referral To In-House Specialist				
	Number Other In-House Chgs-Srvs/100 PE Average Cost Other In-House Chgs/Srvs				
	Average Cost Per PCP Encounter				
SPECIALTY CARE	Number Referrals To Specialists/100 PE Cardiology Ob-Gyn Surgery Pediatrics Mental Health Other Total Specialist Referrals/100 PE				
	Number Referrals For Outside Ancillaries/100 PE Laboratory X-Ray Pharmacy Other Total Outside Ancillary Services/100 PE				

1/ PE = provider encounter

²The question of whether to include hospital rates in the Individual PCP Utilization Profile stimulated more debate than any other question considered by the expert committee. In the end, the decision about whether to tie measures of hospitalization to individual providers hinges on the structure of the C/MHC and the extent to which each PCP can fairly be associated with the number of admissions and lengths of stay for individual patients. C/MHCs wishing to monitor individual PCP performance might consider adding one or a combination of these critical performance measures to their reports: number of admissions per 100 encounters, number of admissions per 100 referrals, number of admissions (by diagnosis), and length of stay (by diagnosis). If such measures are included, the data should distinguish between admissions ordered directly by the PCP and admissions ordered by referring physicians.

INDIVIDUAL PRIMARY CARE PROVIDER UTILIZATION PROFILE

Based on encounter data and information from the C/MHC's accounting system, this report presents a profile of utilization for each primary care provider (PCP), both physicians and others (e.g., pediatric nurse practitioners--PNPs). The report indicates the level of utilization being generated by each PCP. The principal comparison is between the profile for each PCP and the average profile for that category of PCP. For instance, the report compares the "average cost per PCP encounter" for pediatrician X against the "average cost per PCP encounter" for all pediatricians.

The profiles may identify patterns that help the C/MHC achieve its prepayment program goals (i.e., practices that should be replicated). Or, the profiles might identify patterns that cause shortfalls in the prepayment program (i.e., practices that should be eliminated if medically possible). Useful if prepared quarterly, the report should be circulated to:

PCPs Themselves: Each PCP may receive an individual report. PCPs should be encouraged to study variances between their utilization patterns and those of their peers, while being cautioned that variances, per se, do not suggest good or bad practice patterns.

The Medical Director: The Medical Director should review reports on all PCPs, to identify obvious variances, and then may have to consult other sources (e.g., case records) to determine if observable variances have resulted from medical necessity or other acceptable factors, or from inappropriate practice patterns. For example, the Medical Director might learn that physician A has a profile distinctly out of line with his peers.

	Your Year-Date	Category Average Year-Date	Your Current	Category Average Current
Number Rx/100 PE	140	100	160	95

This would tell the Medical Director that physician A tends to issue prescriptions at a much higher rate than other similar physicians. A little research may reveal bona fide reasons for such a discrepancy (e.g., cases of a certain type or patients of a certain age tend to be routed to physician A). Or it might reveal that physician A is over prescribing and that professional education is required.

The first group of data on the report (number of hours worked, number of PCP encounters, number of encounters per hour) also may suggest root causes of discrepancies. If, for example, a PCP is working excessively long hours or has an especially stressful schedule (e.g., many more encounters per hour than peers), the PCP may be "coping" with this stress by over referring or overprescribing.

The report analyzes PCP utilization of the following types of activities: in-house laboratory procedures, in-house X-rays, in-house prescriptions, referrals to in-house specialists, other in-house charges, referrals to outside specialists, and referrals to outside ancillaries. Of course, if a particular C/MHC is concerned about other aspects of PCP utilization, this data element could easily be added to the profile.

The report has two seemingly conspicuous omissions: **Hospital Admissions:** No attempt is made to associate hospital admissions with particular PCPs. A PCP might be unfairly associated with an admission simply by virtue of being on duty when a request for prior authorization is called in, even though that PCP was not involved in the particular case. Inappropriate utilization of hospital services must be uncovered through other means, such as concurrent reviews of hospital admissions or retrospective analyses of the appropriateness of hospitalization.² **Cost Of Care Rendered By Particular PCPs:** Cost data is left off the Individual PCP Utilization Profile for two reasons. First, the costs per unit of care are not determined by each PCP (i.e., the rate charged by an outside referral specialist is negotiated by C/MHC managers, not physicians). PCPs only have control over the number of units "purchased," not the purchase price. Second, the level of difficulty in associating cost data with each PCP probably greatly outweighs the usefulness of the information.

²See adjacent page.

C/MHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT AGGREGATE PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page Two Of Two						
PERIOD COVERED BY REPORT:		CAPITATION POPULATION:				
DATE REPORT PREPARED:		CURRENT PERIOD	YEAR TO DATE THIS YEAR	YTD SAME PERIOD LAST YEAR	ANNUAL TARGET THIS YEAR	VARIANCE THIS YEAR ^{3/}
OUTSIDE ANCILLARY	Number Outside Lab Procedures/PMPY Average Cost Per Outside Lab Procedure Cost Outside Lab Procedures/PMPM					
	Number Outside X-Rays/PMPY Average Cost Per Outside X-Ray Cost Outside X-Rays/PMPM					
	Number Outside Rx/PMPY Average Cost Per Outside Rx Cost Outside Rx/PMPM					
	Number Other Outside Chgs/Srvs/PMPY Average Cost Per Other Outside Chgs/Srvs Cost Other Outside Chgs/Srvs/PMPM					
Cost Of Outside Ancillary Services/PMPM						

C/MHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT AGGREGATE PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page One Of Two						
PERIOD COVERED BY REPORT:		CAPITATION POPULATION:				
DATE REPORT PREPARED:		CURRENT PERIOD	YEAR TO DATE THIS YEAR	YTD SAME PERIOD LAST YEAR	ANNUAL TARGET THIS YEAR	VARIANCE THIS YEAR ^{3/}
AT-RISK HOSPITAL	Number Admissions/1000 MPY ^{2/} Obstetrical Other					
	Number Hospital Days/1000 MPY Obstetrical Other					
	Cost Of Hospital Care PMPM Obstetrical Other					
	Average Cost Per Day Of Hospitalization Obstetrical Other					
AT-RISK ENOPD	Number ER Visits/PMPY Average Cost Per ER Visit Cost ER Visits/PMPM					
	Number OPD Visits/PMPY Average Cost Per OPD Visit Cost OPD Visits/PMPM					
PRIMARY CARE (PC) SERVICES	Number PC Physician Encounters 1/ PMPY ^{2/} Average Cost Per PC Physician Encounter Cost PC Physician Encounters/PMPM ^{2/}					
	Number PC Non-Physician Encounters PMPY Average Cost Per PC Non-Physician Encounter Cost PC Non-Physician Encounters/PMPM					
	Number In-House Lab Procedures/PMPY Average Cost Per In-House Lab Procedure Cost In-House Lab Procedures/PMPM					
	Number In-House X-Rays/PMPY Average Cost Per In-House X-Ray Cost In-House X-Rays/PMPM					
	Number In-House Rx/PMPY Average Cost Per In-House Rx Cost In-House Rx/PMPM					
	Number Other In-House Chgs/Srvs/PMPY Average Cost Per Other In-House Chgs/Srvs Cost Other In-House Chgs/Srvs/PMPM					
Cost Of Primary Care/PMPM						
SPECIALTY CARE ^{4/}	Number Referrals To Cardiologists/PMPY Average Cost Per Cardiologist Referral Cost Cardiologist Referrals/PMPM					
	Number Referrals To Ob-Gyn/PMPY Average Cost Per Ob-Gyn Referral Cost Ob-Gyn Referrals/PMPM					
	Number Referrals To Surgeons/PMPY Average Cost Per Surgical Referral Cost Surgical Referrals/PMPM					
	Number Referrals To Pediatrics/PMPY Average Cost Per Pediatric Referral Cost Pediatric Referrals/PMPM					
	Number Referrals To Mental Health/PMPY Average Cost Per Mental Health Referral Cost Mental Health Referrals/PMPM					
	Number Referrals To Other/PMPY Average Cost Per Other Referral Cost Other Referrals/PMPM					
	Cost Of Specialist Care/PMPM					

- 1/ Includes PC physician encounters in CHC or hospital
2/ PMPM = per member per month; PMPY = per member per year; MPY = members per year
3/ Variance between YTD and annual target
4/ Includes specialists in the CHC, in private offices, in hospitals

- 1/ Includes PC physician encounters in CHC or hospital setting
2/ PMPM = per member per month; PMPY = per member per year; MPY = members per year
3/ Variance between YTD and annual target
4/ Includes specialists in the CHC, in private offices, in hospitals

AGGREGATE PRIMARY CARE PROVIDER UTILIZATION PROFILE

Like the Individual PCP Utilization Profile discussed just above, the Aggregate PCP Utilization Profile also is based on encounter data and information from the C/MHC's accounting system. It presents a utilization profile for all primary care providers combined, both physicians and others (e.g., pediatric nurse practitioners--PNPs). This report differs from the Individual PCP Utilization Profile in three significant ways:

Principal Comparison: Whereas the principal comparison on the Individual PCP Utilization Profile was between a particular physician and his or her peers, the principal comparison on the Aggregate PCP Utilization Profile is between the performance of all PCPs and the C/MHC's performance targets. Performance targets are established by the capitation rate and the actuarial analysis that underlies the capitation rate, as well as by the C/MHC's operating plans and budgets.

The report also allows the C/MHC to compare its progress as of the current period (e.g., month six) with its situation in the same period during the prior fiscal year (e.g., during month six of the prior fiscal year). Such interyear comparisons serve several purposes:

- **Seasonal patterns:** If utilization is seasonal (e.g., emergencies more common in summer, pediatric care more intense in winter) the C/MHC might discover patterns by comparing progress as of month X in the current year (e.g., as of June 89) to status as of month X in the prior year (e.g., as of June 88).
- **Thresholds For Recovery:** The C/MHC manager can judge the severity of a variance, in part, by comparing it to the size of the variance at the same time last year. For example, if in 1988 C/MHC was able to recover from a 15 percent variance as of month six, it might have confidence in its ability to recover from a 12 percent variance as of month six of 1989.

Cost Data: Whereas the Individual PCP Utilization Profile omitted cost data, this Aggregate PCP Utilization Profile does include aggregate cost data for each type of service/benefit for which the C/MHC is at risk under the capitation contract.

Hospital Data: Whereas the Individual PCP Utilization Profile did not include hospital data, this report includes information about the number and cost of hospital admissions, emergency room (ER) visits, and hospital outpatient department (OPD) visits. These services can be very costly. Therefore, if the C/MHC is at risk for these services, a variance between actual and targeted utilization and cost of these services can be devastating to the C/MHC's prepayment program.

The report will be most useful if produced monthly and distributed on a timely basis. It should be reviewed by the C/MHC managers and the Medical Director. It will reveal the extent of variances and the source of variance, making it possible for managers and the Medical Director to take corrective actions. For example, a report might reveal:

	Current Period This Year	Year-Date This Year	Year-Date Last Year	Annual Target	Variance This Year
Number of Referrals to MH/PMPY	0.8	1.2	0.5	0.3	0.9 300%
Costs of Specialist Care/PMPM	\$45	\$60	\$25	\$18	233%

If the variance in Specialist Care PMPM seems to be largely the function of a variance in referrals to mental health specialists, the C/MHC might consider (1) renegotiating its rates with mental health specialists, (2) discussing with PCPs legitimate ways of reducing mental health referrals, or (3) bringing a mental health specialist in-house (a classic "make or buy" decision).

C/MHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT					
REPORT #4		PREPAYMENT SYSTEM PERFORMANCE			
Page One of One					
PERIOD COVERED BY REPORT:		CURRENT PERIOD	YEAR TO DATE	PERFORMANCE TARGET	VARIANCE 1/
DATE REPORT PREPARED:					
ENROLLMENT	AFDC Medicaid Beginning Membership New Adds Terminations Ending Membership				
	Other Medicaid Beginning Membership New Adds Terminations Ending Membership				
	Medicare Beginning Membership New Adds Terminations Ending Membership				
	Commercial Beginning Membership New Adds Terminations Ending Membership				
PUBLIC/STAFF RELATIONS	Patient Complaints/PMPT Administrative Patient Care				
	Waiting Time For Appointment For Physician Visit For Other Physician Visit				
	Waiting Time Upon Arrival With Appointment Walk-In Visit				
	Staff Turnover Physicians Nurses Other Medical Administrative				

1/ Variance between YTD and annual target

PREPAYMENT SYSTEM PERFORMANCE

Based on information from the C/MHC's personnel and appointment system and on basic enrollment data, this report summarizes key operating characteristics of the prepayment program. Two basic categories of data are captured by this report:

- **Enrollment:** For each category of enrollee (see Segmenting The Enrollee Population, Section 2.5) the report shows the number of members at the beginning of the period, the number added during the period, the number lost during the period, and the net ending membership for the period.
- **Public And Staff Relations:** This section of the report highlights several aspects of prepayment program operation that are surrogate measures of "customer" and staff satisfaction: the number of patient complaints, waiting times, and staff turnover.

The principal basis of comparison in this report is actual performance versus a performance target (planned). In the case of enrollment data, marketing targets are the basis of comparison. In the case of public and staff relations data, operating goals are the basis of comparison. For instance, to balance patient satisfaction with cost efficiency, the C/MHC might set a goal of a 15-day waiting period between a patient request for nonemergency service and setting an appointment.

This report will be useful if completed quarterly. It should be shared with appropriate health care delivery, marketing, and personnel managers, as well as the C/MHC Director. This report may provide an indication that utilization or cost problems are on the horizon, or it might explain why obvious cost or utilization problems are occurring. For instance,

- **Early Warning:** If waiting time is on the increase, enrollment declines may soon follow. If enrollment is beginning to drop, revenue shortfalls may soon follow.
- **Insight Into Obvious Problems:** High levels of staff turnover might explain why outside referrals are higher than expected (e.g., in-house staff shortages have necessitated additional referrals or dissatisfied providers may over-refer patients).

SECTION 2:
MAJOR FEATURES OF THE
CRITICAL PERFORMANCE MEASURES REPORTS

REPORT #1		C/MHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT CAPITATION PROFILE Page One of One			
PERIOD COVERED BY REPORT:		CURRENT PERIOD	YEAR TO DATE	CAPITATION TARGET	VARIANCE 2/
DATE REPORT PREPARED:					
AFDC MEDICAID	Number Of Member Months				
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TPL Revenue PMPM				
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM Total Cost PMPM				
	Gain Or Loss PMPM				
OTHER MEDICAID	Number Of Member Months				
	Capitation Revenue PMPM Reinsurance Revenue PMPM COB/TPL Revenue PMPM				
	Administrative Costs PMPM Marketing Costs PMPM Cost Of Care PMPM Total Cost PMPM				
	Gain Or Loss PMPM				
MEDICARE	Number Of Member Months				
	Capitation Revenue PMPM Reinsurance Revenue PMPM COB/TPL Revenue PMPM				
	Administrative Costs PMPM Marketing Costs PMPM Cost Of Care PMPM Total Cost PMPM				
	Gain Or Loss PMPM				
COMMERCIAL	Number Of Member Months				
	Premium Revenue PMPM Reinsurance Revenue PMPM COB/TPL Revenue PMPM				
	Administrative Costs PMPM Marketing Costs PMPM Cost Of Care PMPM Total Cost PMPM				
	Gain Or Loss PMPM				

1/ PMPM = per member per month

2/ Variance between YTD and capitation budget

3/ Administrative and marketing costs can be apportioned to each prepaid account on the basis of the member months as a percentage of total member months

IDENTIFYING CRITICAL MEASURES OF FINANCIAL WELL-BEING

The basic purpose of the critical performance measures system is to help managers answer a simple but profound business question:

Can the C/MHC afford to continue providing capitated services under these conditions?

Put most simply, C/MHC managers--like managers in all business endeavors--must know, with reasonable certainty and on a timely basis, how many units of service or product it is selling, how much it costs to do so, and how much revenue is generated as a result. Not surprisingly, then, the critical performance measures for C/MHC prepayment program management focus on the number of services provided and the resulting costs and revenues.

As is discussed in the sections that follow, these three basic measures--volume, cost, and revenue--must be analyzed along several important dimensions:

- **Type of Producer:** Volume, cost, and revenue measures are ascribed to individual providers or categories of providers (see *Segmenting The Provider Population*, Section 2.4.)
- **Type of Customer:** Volume, cost, and revenue measures are disaggregated to identify use and cost/income patterns by customer (i.e., enrollee) type (see *Segmenting The Enrollee Population*, Section 2.5.)
- **Type of Product:** Volume, cost, and revenue measures are analyzed to reflect the type of service being produced, and the costs of and returns from that production (see *Segmenting The Services Provided*, Section 2.6.)

Volume, cost, and revenue data, by provider, enrollee, and service type, then must be compared to a standard, target, or budget to determine their meaning. (see *Selecting A Benchmark For Comparison*, Section 2.8.) Such analysis is facilitated by reducing all data to comparable terms such as per member per month, or per member per year (see *Finding A Useful Denominator*, Section 2.7.)

The exhibit on the facing page shows that the critical measures of overall financial well-being answer these questions:

- How much does it cost to market, administer, and provide care to each category of enrollees?
- How much revenue has been earned as a result?
- Did the revenue exceed or fall short of the costs of care?

It is not always easy to measure cost in a C/MHC environment. If the C/MHC's standard fee for service charges per unit of service are cost-based and reassessed frequently, then charge rates can be used as a basis for estimating costs of care by type of service, type of enrollee, and type of provider. Otherwise, the C/MHC will have to develop a cost-based "price" for each type of service. In so doing, C/MHCs should take special care to ensure that cost figures used to determine required capitation levels are based on full accrual costs (see *Timing CPM Report Preparation*, Section 2.9).

IDENTIFYING CRITICAL MEASURES OF UTILIZATION AND COSTS OF CARE

While the Capitation Profile answers the most basic questions about viability, the two Primary Care Provider Utilization Profiles (one set for individuals and one showing an aggregate portrait) provide clues as to why the capitation program is succeeding or failing financially. From the Aggregate PCP Utilization Profile, C/MHC managers can ascertain:

- If the cost PMPM for the service is in line with the capitation revenue PMPM for the same service. This information will help the C/MHC (1) understand why the program might not be breaking even on the capitation contract and (2) negotiate realistic but competitive capitation contracts in future years.

The cost PMPM is, after all, a function of two individual factors: the number of services consumed and the average cost per unit of those services:

- If the number of services actually provided (by type, provider, and enrollee category) approximates the number of services the C/MHC planned on providing. By expressing these data in terms of per member per year, the C/MHC will be able to determine the validity of the actuarial assumptions on which its capitation rate is based. For instance, if C/MHC managers learn that enrollees are demanding 25 percent more physician encounters PMPY than planned, they will know that (1) the C/MHC needs to develop a patient education program to encourage proper (hopefully, lower) utilization of services, or that (2) the actuarial assumptions are unrealistically low, or that (3) at the present rate of utilization, the C/MHC will have to reduce the cost per encounter to sustain a financially viable prepayment program.
- If the average cost of each service (by type, provider, and enrollee category) approximates the estimated average cost of providing the service. This provides a measure of productivity and efficiency. Comparisons of the actual cost to the budgeted cost will point to areas in which belt-tightening might be required to avert financial difficulties in the prepayment program.

The Individual PCP Utilization Profile provides further information about why the C/MHC is achieving or deviating from its utilization plan and cost budget. C/MHC managers and the C/MHC Medical Director can identify which providers, if any, are contributing disproportionately to higher than expected utilization rates and costs and, if additional analysis reveals no appropriate medical basis for these deviations, can take steps to bring the practice patterns of these providers into line with the overall plan (see Section 2.8, Selecting A Benchmark For Comparison).

Note that the Individual PCP Utilization Profile does not include cost data for outside services. This exclusion is based on the assumption that C/MHC managers, not providers, are responsible for negotiating the price per unit of service with referral specialists and ancillary providers. Individual C/MHC providers, thus, are responsible only for the volume of services ordered, not the resulting cost (i.e., they can contribute to cost-effectiveness only by reducing utilization).

Of course, all of this analysis of cost and volume presupposes the existence of a fairly detailed service provision plan and budget (see Section 2.8, Selecting A Benchmark For Comparison). In the prepayment environment, even more so than in the fee-for-service environment, the importance of careful and detailed planning and budgeting cannot be overstated, and C/MHCs should not consider entering the prepayment arena without making a substantial commitment to this basic management task.

The CPM system also presupposes the existence of an information and accounting system which can generate the basic data, without which the C/MHC should not venture into a capitation arrangement.

C/MHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT PREPAYMENT SYSTEM PERFORMANCE Page One of One					
REPORT #4					
PERIOD COVERED BY REPORT:		CURRENT PERIOD	YEAR TO DATE	PERFORMANCE TARGET	VARIANCE 1/
DATE REPORT PREPARED:					
ENROLLMENT	AFDC/Medicaid Beginning Membership New Adds Terminations Ending Membership				
	Other Medicaid Beginning Membership New Adds Terminations Ending Membership				
	Medicare Beginning Membership New Adds Terminations Ending Membership				
	Commercial Beginning Membership New Adds Terminations Ending Membership				
PUBLIC/STAFF RELATIONS	Patient Complaints/PMPT Administrative Patient Care				
	Waiting Time For Appointment For Physician Visit For Other Physician Visit				
	Waiting Time Upon Arrival With Appointment Walk-In Visit				
	Staff Turnover Physicians Nurses Other Medical Administrative				

1/ Variance between YTD and annual target

IDENTIFYING SELECTED CRITICAL MEASURES OF MEMBERSHIP AND MEMBER SATISFACTION

With the report on Prepayment System Performance, C/MHC managers can monitor several vital signs of prepayment program health: enrollment and disenrollment levels, patient complaints, waiting times, and staff turnover. These vital signs may provide early warning that something is amiss in the delivery of prepaid services, enabling C/MHC managers to take corrective steps before problems result in serious financial difficulties:

- **Enrollment Levels:** The number of enrollees is central to the C/MHC's financial viability because:

$$\text{Enrollees} \times \text{Capitation Rate} = \text{Capitation Revenue}$$

If the actual number of enrollees falls short of the number planned, revenue will fall correspondingly. If the C/MHC has high fixed costs associated with serving the capitated population, a decrease in enrollee volume will result in an increase in the actual cost per capita, and this cost probably will not be covered by the fixed capitation revenue.

- **Disenrollment:** In addition to the obvious impact of disenrollment (i.e., disenrolled members no longer generate capitation revenue), disenrollment impacts the C/MHC in several other significant ways:
 - The C/MHC must incur additional marketing and administrative costs to replace disenrolled members.
 - To the extent that disenrollment is due to dissatisfaction, the C/MHC's positive reputation in the community might be threatened, making it increasingly difficult to attract replacement enrollees.
 - One premise of a prepaid program is that it will be able to "manage" the care requested and provided. If a managed care program provides patient education about appropriate care and selected preventive services, it should, over time, be able to realize a reduction in demand for services. Stability in the patient population is essential if the C/MHC is to realize these benefits of managed care; high levels of disenrollment suggest that such stability in the patient population might not be achieved.
- **Patient Complaints:** High levels of patient complaints might predict high levels of disenrollment. Swift attention to complaints might eliminate disenrollment and help avoid potentially damaging disenrollments.
- **Waiting Time:** C/MHC managers should manage three types of waiting times:
 - The time between the request for an appointment and the next available appointment.
 - The time a patient has to wait to see a provider after arriving promptly for an appointed visit.
 - The time a patient has to wait to see a provider after arriving for a walk-in visit.

By monitoring these waiting times, C/MHC managers can strike a balance between efficient utilization of resources and patient satisfaction (short waiting times).

- **Staff Turnover:** High levels of staff turnover may signal rising expenses (e.g., due to the cost of recruitment and training replacements), increased patient satisfaction (e.g., due to inability to achieve continuity of care), and other problems in the prepayment and fee-for-service programs. Turnover can be measured in terms of the average length of employment per employee or perhaps the percent of employees leaving the C/MHC relative to the total number of employees over a given time period.

CMMC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT AGGREGATE PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page One Of Two						
REPORT #		CAPITATION POPULATION:				
PERIOD COVERED BY REPORT:		CURRENT PERIOD	YEAR TO DATE THIS YEAR	YTD SAME PERIOD LAST YEAR	ANNUAL TARGET THIS YEAR	VARIANCE THIS YEAR %
DATE REPORT PREPARED:						
PRIMARY CARE (PC) SERVICES	Number PC Physician Encounters / PMPM Average Cost Per PC Physician Encounter / PMPM Cost PC Physician Encounters / PMPM					
	Number PC Non-Physician Encounters / PMPM Average Cost Per PC Non-Physician Encounter / PMPM Cost PC Non-Physician Encounters / PMPM					
	Number In-House Lab Procedures / PMPM Average Cost Per In-House Lab Procedure Cost In-House Lab Procedures / PMPM					
	Number In-House X-Rays / PMPM Average Cost Per In-House X-Ray Cost In-House X-Rays / PMPM					
	Number In-House Rx / PMPM Average Cost Per In-House Rx Cost In-House Rx / PMPM					
	Number Other In-House Chgs/Svcs / PMPM Average Cost Per Other In-House Chgs/Svcs Cost Other In-House Chgs/Svcs / PMPM					
	Cost of Primary Care / PMPM					

REPORT #		CMMC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT INDIVIDUAL PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page One Of One			
PRIMARY CARE PROVIDER NAME: PRIMARY CARE PROVIDER NUMBER: PRIMARY CARE PROVIDER CATEGORY:		CAPITATION POPULATION:			
PERIOD COVERED BY REPORT: DATE REPORT PREPARED:		YOUR YEAR-DATE	CATEGORY AVERAGE YEAR-DATE	YOUR CURRENT	CATEGORY AVERAGE CURRENT
SPECIALTY CARE (SC) SERVICES	Number Referrals To Cardiologists / PMPM Average Cost Per Cardiologist Referral Cost Cardiologist Referrals / PMPM				
	Number Referrals To Ob-Gyns / PMPM Average Cost Per Ob-Gyn Referral Cost Ob-Gyn Referrals / PMPM				
	Number Referrals To Surgeons / PMPM Average Cost Per Surgical Referral Cost Surgical Referrals / PMPM				
	Number Referrals To Pediatricians / PMPM Average Cost Per Pediatric Referral Cost Pediatric Referrals / PMPM				
	Number Referrals To Mental Health / PMPM Average Cost Per Mental Health Referral Cost Mental Health Referrals / PMPM				
	Number Referrals To Other / PMPM Average Cost Per Other Referral Cost Other Referrals / PMPM				
	Cost of Specialist Care / PMPM				

- 1/ Includes PC physician encounters in CHC or hospital setting.
- 2/ PMPM = per member per month; PMPY = per member per year.
- 3/ Variance between YTD and annual target.
- 4/ Includes specialists in the CHC, in private offices, in hospitals.

PRIMARY CARE (PC) SERVICES		CAPITATION POPULATION:			
PERIOD COVERED BY REPORT: DATE REPORT PREPARED:		YOUR YEAR-DATE	CATEGORY AVERAGE YEAR-DATE	YOUR CURRENT	CATEGORY AVERAGE CURRENT
SPECIALTY CARE (SC) SERVICES	Number Hours Worked In Period Number PCP Encounters In Period Number PCP Encounters/Hour Average Cost Of Professional Services / PCP Encounter				
	Number In-House Lab Procedures / 100 PE 1/ Average Cost Per In-House Lab Procedure				
	Number In-House X-Rays / 100 PE Average Cost Per In-House X-Ray				
	Number In-House Rx / 100 PE Average Cost Per In-House Rx				
	Number Referrals To In-House Specialists / 100 PE Average Cost Per Referral To In-House Specialist				
	Number Other In-House Chgs/Svcs / 100 PE Average Cost Other In-House Chgs/Svcs				
	Average Cost Per PCP Encounter				
SPECIALTY CARE	Number Referrals To Specialists / 100 PE Cardiology Ob-Gyn Surgery Pediatrics Mental Health Other Total Specialist Referrals / 100 PE				
	Number Referrals For Outside Ancillaries / 100 PE Laboratory X-Ray Pharmacy Other Total Outside Ancillary Services / 100 PE				

1/ PE = provider encounter

SEGMENTING THE PROVIDER POPULATION

Analysis of critical performance measures will depend on creation of logical groupings (of providers, of enrollee populations, of services provided) among which comparisons can properly be made. The admonition against "comparing apples to oranges" comes to mind.

The exhibit on the adjacent page illustrates that before gathering and reporting data on aggregate and individual provider activity, the C/MHC must decide how to group providers. This decision will depend on the range of C/MHC primary care services and the degree of specialization among its providers, and on staff size. For instance:

- **Range of C/MHC primary care services and degree of specialization among providers:** If the population of providers who see patients autonomously is fairly homogenous (e.g., general physicians and nurse practitioners, none of whom specialize in a particular type of service), then two simple provider categories can be used for both PCP Utilization Profiles:

- The Aggregate PCP Utilization Profile shows that data will be reported (in the first set of three rows) about the practice patterns of all physicians and (on the second set of three rows) about the practice patterns of all non-physician providers.
- The Individual PCP Utilization Profile shows that physicians would be compared to other physicians in their "primary care provider category" (i.e., physicians). Similarly, a report to a non-physician provider would compare that provider's performance to the average for all other non-physician providers.

If the population of providers is not homogenous, a different approach might be appropriate to logically group providers for comparison. For instance, a C/MHC with a large pediatric practice and with staff specialists to match might create two groups of physicians (pediatricians and all others) and two groups of non-physician providers (pediatric nurse practitioners and all other non-physician providers).

- **Staff size:** Regardless of whether the provider population is homogeneous or heterogeneous, it might be impractical to segment the providers into "like" categories unless the resulting categories contain at least half a dozen providers each.

Each C/MHC will have to balance the need for logic (clean groupings) with practicality (groupings of meaningful size), and then keep in mind the shortcomings of their grouping strategy (if any) when analyzing the resulting data.

REPORT #1		CMHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT CAPITATION PROFILE Page One of One			
PERIOD COVERED BY REPORT:		CURRENT PERIOD	YEAR TO DATE	CAPITATION TARGET	VARIANCE 1/
DATE REPORT PREPARED:					
CAPITATION POPULATION	Number Of Member Months				
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TPA Revenue PMPM				
	Administ. Market Share Cost Of Total Co				
	Gain Or				
REPORT #2		CMHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT INDIVIDUAL PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page One of One			
PRIMARY CARE PROVIDER NAME:		CAPITATION POPULATION:			
PRIMARY CARE PROVIDER NUMBER:					
PRIMARY CARE PROVIDER CATEGORY:					
PERIOD COVERED BY REPORT:		YOUR YEAR-DATE	CATEGORY AVERAGE YEAR-DATE	YOUR CURRENT	CATEGORY AVERAGE CURRENT
DATE REPORT PREPARED:					
OTHER MEDICAID	Number Hours Worked In Period				
	Number PCP Encounters In Period				
	Number PCP Encounters/Hour				
	Average Cost Of Professional Services/PCP Encounter				
MEDICAID	Number In Average Co				
	Number In Average Co				
	Number In Average Co				
	Number In Average Co				
MEDICARE	Number In Average Co				
	Number In Average Co				
	Number In Average Co				
	Number In Average Co				
COMMERCIAL	Number In Average Co				
	Number In Average Co				
	Number In Average Co				
	Number In Average Co				
REPORT #3		CMHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT AGGREGATE PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page One Of Two			
PERIOD COVERED BY REPORT:		CAPITATION POPULATION:			
DATE REPORT PREPARED:		CURRENT PERIOD	YEAR TO DATE THIS YEAR	YTD SAME PERIOD LAST YEAR	ANNUAL TARGET THIS YEAR
					VARIANCE THIS YEAR 2/
PRIMARY CARE (PC) SERVICES	Number PC Physician Encounters 1/ PMPY 2/ Average Cost Per PC Physician Encounter Cost PC Physician Encounters/PMPM 2/				
	Number PC Non-Physician Encounters PMPY Average Cost Per PC Non-Physician Encounter Cost PC Non-Physician Encounters/PMPM				
	Number In Average Co				
	Number In Average Co				
SPECIALTY CARE	Cardiology Ob-Gyn Surgery Pediatrics Mental Health Other				
	Number In Average Co				
	Number In Average Co				
	Number In Average Co				
OUTSIDE ANCILLARY	Laboratory X-Ray Pharmacy Other				
	Number In Average Co				
	Number In Average Co				
	Number In Average Co				
REPORT #4		CMHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT PREPAYMENT SYSTEM PERFORMANCE Page One of One			
PERIOD COVERED BY REPORT:		CURRENT PERIOD	YEAR TO DATE	PERFORMANCE TARGET	VARIANCE 1/
DATE REPORT PREPARED:					
ENROLLMENT	AFDC Medicaid Beginning Membership New Adds Terminations Ending Membership				
	Other Medicaid Beginning Membership New Adds Terminations Ending Membership				
	Medicare Beginning Membership New Adds Terminations Ending Membership				
	Commercial Beginning Membership New Adds Terminations Ending Membership				
PUBLIC/STAFF RELATIONS	Patient Complaints/PMPY Administrative Patient Care				
	Waiting Time For Appointment For Physician Visit For Other Physician Visit				
	Waiting Time Upon Arrival With Appointment Walk-In Visit				
	Staff Turnover Physicians Nurses Other Medical Administrative				

1/ PMPM = per member per month
2/ Variance between YTD and annual target
3/ Administrative on the basis of

1/ PE = provider encounter

1/ Includes PC physician
2/ PMPM = per member per month
3/ Variance between YTD and annual target
4/ Includes specialty

1/ Variance between YTD and annual target

SEGMENTING THE ENROLLEE POPULATION

Just as the provider population must be segmented to facilitate logical analysis, so must the enrollee population be segmented. Such segmentation should be based on two assumptions:

- That each enrollee in a group is likely to use services in ways and amounts similar to utilization of other enrollees in that group, and that these utilization patterns are different from the ones to be expected in other capitation groups.
- That each enrollee in a group generates the same amount of capitation revenue as each other enrollee in that group, and that this amount is different than the amount generated by enrollees in other capitation groups.

As a point of departure, the C/MHC should consider segmenting its prepayment enrollee population into broad categories such as Medicaid, Medicare, and Commercial. If the C/MHC has reason to suspect that subgroups within these large categories use services in disparate ways (e.g., AFDC within the Medicaid population), or if subgroups generate different capitation revenues, then the categories may be broken down further into subgroups.

For example, some States pay different capitation amounts for age and sex subgroups within the Medicaid category (e.g., a different amount for infants, for girls aged 1 to 14, for girls aged 15 to 20, for boys aged 1 to 20, and for adults). The information benefit of distinguishing among these subgroups should, of course, be weighted against the cost and practicality of doing so.

Each C/MHC will have to determine which capitation groups most logically reflect its particular capitation population, the features of its capitation contract, and the size of the capitation groups and subgroups. If, for instance, the size of the "non-AFDC Medicaid population" is only a tiny fraction of the total Medicaid population, and if the capitation revenue is about equal for both types of Medicaid populations, it might not be worth the trouble to segment information about Medicaid enrollees into two separate groups for reporting and analysis purposes.

The exhibit on the adjacent page shows how the three critical performance reporting system reports accommodate the need for enrollee population segmenting:

- **Capitation Profile:** On a single page, a capitation profile is provided for each capitation segment (in the illustration, for AFDC, other Medicaid, Medicare, and Commercial accounts).
- **PCP Utilization Profiles:** A separate report would be produced for each capitation group (in the illustration, these reports would show data for the AFDC population only; an additional report would be generated for each other capitation group that makes sense for the particular C/MHC).

CNHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT CARTATION PROFILE Page One of One					
REPORT #1		CURRENT PERIOD	YEAR TO DATE	CARTATION TARGET	VARIANCE %
PERIOD COVERED BY REPORT:					
DATE REPORT PREPARED:					
AT-LINK MEDICAL	Number Of Member Months				
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM				
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM				
	Gain Or Loss				
REPORT #2 CNHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT INDIVIDUAL PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page One of One					
OTHER MEDICAL	Number Of Months	PRIMARY CARE PROVIDER NAME:		CARTATION POPULATION:	
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	PRIMARY CARE PROVIDER NUMBER:		YOUR YEAR-DATE	CATEGORY AVERAGE YEAR-DATE
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	PERIOD COVERED BY REPORT:		YOUR CURRENT	CATEGORY AVERAGE CURRENT
	Gain Or Loss	DATE REPORT PREPARED:			
MEDICAL	Number Of Months	Number Hours Worked In Period			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Number PCP Encounters In Period			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Number PCP Encounters/Year			
	Gain Or Loss	Average Cost Per In-House Lab Procedure			
COMBINED	Number Of Months	Number In-House X-Rays/100 PE			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Average Cost Per In-House Lab Procedure			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Number In-House X-Rays/100 PE			
	Gain Or Loss	Average Cost Per In-House Lab Procedure			
REPORT #3 CNHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT AGGREGATE PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page One of Two					
SPECIALTY CARE	Number Of Months	PERIOD COVERED BY REPORT:		CARTATION POPULATION:	
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	DATE REPORT PREPARED:		CURRENT PERIOD	YEAR TO DATE THIS YEAR
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM			YTD SAME PERIOD LAST YEAR	ANNUAL TARGET THIS YEAR
	Gain Or Loss				VARIANCE THIS YEAR %
SPECIALTY CARE	Number Of Months	Number PC Physician Encounters 1/ PMPY 3/			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Cost Per PC Physician Encounter			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	PC Physician Encounters/PMPM 3/			
	Gain Or Loss				
SPECIALTY CARE	Number Of Months	Number PC Non-Physician Encounters PMPY			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Average Cost Per PC Non-Physician Encounter			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Cost PC Non-Physician Encounters/PMPM			
	Gain Or Loss				
REPORT #4 CNHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT AGGREGATE PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page Two Of Two					
OUTSIDE ANGLARY	Number Of Months	PERIOD COVERED BY REPORT:		CARTATION POPULATION:	
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	DATE REPORT PREPARED:		CURRENT PERIOD	YEAR TO DATE THIS YEAR
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM			YTD SAME PERIOD LAST YEAR	ANNUAL TARGET THIS YEAR
	Gain Or Loss				VARIANCE THIS YEAR %
OUTSIDE ANGLARY	Number Of Months	Number Outside Lab Procedures/PMPY			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Average Cost Per Outside Lab Procedure			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Cost Outside Lab Procedures/PMPM			
	Gain Or Loss				
OUTSIDE ANGLARY	Number Of Months	Number Outside X-Rays/PMPY			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Average Cost Per Outside X-Ray			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Cost Outside X-Ray/PMPM			
	Gain Or Loss				
OUTSIDE ANGLARY	Number Of Months	Number Outside Rx/PMPY			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Average Cost Per Outside Rx			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Cost Outside Rx/PMPM			
	Gain Or Loss				
OUTSIDE ANGLARY	Number Of Months	Number Other Outside Chgs/Invs/PMPY			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Average Cost Per Other Outside Chgs/Invs			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Cost Other Outside Chgs/Invs/PMPM			
	Gain Or Loss				
OUTSIDE ANGLARY	Number Of Months	Number Admissions/1000 MPPY 3/			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Observed			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Other			
	Gain Or Loss				
OUTSIDE ANGLARY	Number Of Months	Number Hospital Days/1000 MPPY			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Observed			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Other			
	Gain Or Loss				
OUTSIDE ANGLARY	Number Of Months	Cost Of Hospital Care PMPM			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Observed			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Other			
	Gain Or Loss				
OUTSIDE ANGLARY	Number Of Months	Average Cost Per Day Of Hospitalization			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Observed			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Other			
	Gain Or Loss				
OUTSIDE ANGLARY	Number Of Months	Number ER Visits/PMPY			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Average Cost Per ER Visit			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Cost ER Visits/PMPM			
	Gain Or Loss				
OUTSIDE ANGLARY	Number Of Months	Number OPD Visits/PMPY			
	Capitation Revenue PMPM 1/ Reinsurance Revenue PMPM COB/TP, Revenue PMPM	Average Cost Per OPD Visit			
	Administrative Costs PMPM 3/ Marketing Costs PMPM Cost Of Care PMPM	Cost OPD Visits/PMPM			
	Gain Or Loss				

1/ PMPM = per member month

2/ Variance between Administrative and on the basis of PE

3/ PE = provider encounter

1/ Includes PC physician encounters in CHC or hospital setting

2/ PMPM = per member per month, PMPY = per member per year, MPPY = members per year

3/ Variance between YTD and annual target

4/ Includes specialists in the CHC, in private offices, in hospitals

SEGMENTING THE SERVICES PROVIDED

Just as the provider and enrollee populations must be segmented to support practical comparisons, so must the cost of care be segmented to describe the various service components. In this way, the C/MHC can discern which types of service are costing the most and the least and, more to the point, which are costing more or less than planned for in the actuarial and budgetary assumptions that underlie the capitation amounts.

As was the case with segmenting providers and enrollee groups, each C/MHC must describe its service segments with these factors in mind:

- **The components included in the contracted for service package:** The CPM reports should cover all services for which the C/MHC is at risk under the capitation contract. For instance, the Aggregate PCP Utilization Profile suggests that a C/MHC might collect information about primary care services, specialty care services, ancillary care, hospital care, and ER/OPD services. If a C/MHC is not at risk for hospital care, this item should not be included in the reporting system. If the C/MHC is at risk only for physician services provided to inpatients, then the category "hospital care" will be included, with the understanding that only costs and utilization of inpatient physician visits (not the per diem or other hospital charges) will be reflected. If the C/MHC is not at risk for ER/OPD services, these should not be shown.
- **The locus of care and the degree of control the C/MHC or its PCPs can exercise over utilization levels:** In the Aggregate PCP Utilization Profile, the section entitled "Primary Care Services" is intended to gather data about primary care visits, as well as about ancillary services provided within the C/MHC itself; the section entitled "Outside Ancillaries" is intended to reflect ancillary services provided elsewhere (e.g., upon referral). The assumption is that the cost of outside ancillaries is higher than the cost of in-house ancillaries and, therefore, that outside ancillaries deserve special scrutiny.

Comparing the Aggregate and Individual PCP Profiles, note that much more detail appears with respect to the Aggregate PCP Utilization Profile. This reflects two assumptions: (1) individual providers do not have much control over services such as hospitalization and ER/OPD care and, thus, that it is meaningless to measure their performance in "generating" or "utilizing" certain services and (2) that it would be impractical to gather detailed cost data for individual providers.

- **The relative cost and volume of each service in the service package:** It makes most sense to collect and analyze data on services that have a significant impact on C/MHC prepayment program costs. Therefore, include in the reporting system services that occur in high volume or that are relatively expensive. For instance, C/MHCs with elderly populations might include "Cardiology" in the section on Specialty Care, while C/MHCs that serve more youthful populations might not find this information useful.

OSHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT CAPITATION PROFILE Page One of One					
PERIOD COVERED BY REPORT:		CURRENT PERIOD	YEAR TO DATE	CAPITATION TARGET	VARIANCE %
ATC MEDICARE	DATE REPORT PREPARED:				
	Number Of Member Months				
	Capitation Revenue PMPM 1/				
	Reinsurance Revenue PMPM				
	COB/TPA Revenue PMPM				
	Administrative Costs PMPM 2/				
	Marketing Costs PMPM				
	Cost Of Care PMPM				
	Total Cost PMPM				
	Gain Or Loss PMPM				
	Number Of Member Months				

1/ PMPM = per member per month
2/ Expenses based on the capitated budget
3/ Administrative and marketing costs can be apportioned to each shared account on the basis of the member months as a percentage of total member months

OSHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT INDIVIDUAL PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page One of One					
PRIMARY CARE PROVIDER NAME:		CAPITATION POPULATION:			
PRIMARY CARE PROVIDER NUMBER:		YOUR YEAR-DATE	CATEGORY AVERAGE YEAR-DATE	YOUR CURRENT	CATEGORY AVERAGE CURRENT
PERIOD COVERED BY REPORT:					
DATE REPORT PREPARED:					
PRIMARY CARE (PC) SERVICES	Number Hours Worked In Period				
	Number PCP Encounters In Period				
	Number PCP Encounters/Hour				
	Average Cost Of Professional Services/PCP Encounter				
	Number In-House Lab Procedures/100 PE 1/				
	Average Cost Per In-House Lab Procedure				
	Number In-House X-Rays/100 PE				
	Average Cost Per In-House X-Ray				
	Number In-House Rx/100 PE				
	Average Cost Per In-House Rx				
SPECIALTY CARE	Number Referrals To In-House Specialists/100 PE				
	Average Cost Per Referral To In-House Specialist				
	Number Other In-House Chgs/Spec/100 PE				
	Average Cost Other In-House Chgs/Spec				
	Average Cost Per PCP Encounter				
	Number Referrals To Specialists/100 PE				
	Cardiology				
	Ob-Gyn				
	Surgery				
	Pediatrics				
Neurology					
Other					
	Total Specialists %				

1/ PE = provider encounter

OSHC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT AGGREGATE PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE Page One Of Two						
PERIOD COVERED BY REPORT:		CAPITATION POPULATION:				
DATE REPORT PREPARED:		CURRENT PERIOD	YEAR TO DATE THIS YEAR	YTD SAME PERIOD LAST YEAR	ANNUAL TARGET THIS YEAR	VARIANCE THIS YEAR %
PRIMARY CARE (PC) SERVICES	Number PC Physician Encounters 1/ PMPM 3/					
	Average Cost Per PC Physician Encounter					
	Cost PC Physician Encounters/PMPM 3/					
	Number PC Non-Physician Encounters PMPM					
	Average Cost Per PC Non-Physician Encounter					
	Cost PC Non-Physician Encounters/PMPM					
	Number In-House Lab Procedures/PMPM					
	Average Cost Per In-House Lab Procedure					
	Cost In-House Lab Procedures/PMPM					
	Number In-House X-Rays/PMPM					
Average Cost Per In-House X-Ray						
Cost In-House X-Rays/PMPM						
Number In-House Rx/PMPM						
Average Cost Per In-House Rx						
Cost In-House Rx/PMPM						
Number Other In-House Chgs/Spec/PMPM						
Average Cost Per Other In-House Chgs/Spec						
Cost Other In-House Chgs/Spec/PMPM						
	Cost of Primary Care**					
	Number "A"					

1/ Includes PC physician encounters in CHC or hospital setting
2/ PMPM = per member per month, PMPM = per member per year, GPV = members per year
3/ Expenses based on the capitated budget
4/ Includes specialists in the CHC, in private offices, in hospitals

FINDING A USEFUL DENOMINATOR

It has been jokingly said that health statisticians are people with lots of numbers, searching for meaningful denominators. Such also is the lot of managers of prepayment programs.

Several very useful denominators have evolved from the prepayment industry over the past decade. The most common are (1) per member per month (PMPM), (2) per member per year (PMPY), (3) per encounter (PE) or per 100 (or 1,000) encounters, and (4) per 100 (or 1,000) members per year (PMY).

Denominators such as these are suggested throughout this document and, of course, each C/MHC is free to use whatever denominators make most sense in reflecting its operations. Normally, PMPM is used in reporting and analyzing cost and revenue data. The other denominators normally are used in reporting and analyzing utilization data.

Whichever denominator is used, be certain that the denominator for each data item is clearly indicated and that all people reviewing reported data understand the implications of the particular denominator. Also, to the extent possible, use the same denominator to report similar information over time, to facilitate the development of trend data.

Denominators serve several important functions:

- The use of consistent denominators over time will facilitate trend analysis, even as the absolute size of the prepayment program rises or falls.
- The use of consistent denominators throughout an industry (e.g., by most prepayment providers and by capitating agencies) facilitates mutually understandable discussion and negotiation.
- Such denominators also will facilitate comparisons among C/MHCs (and HMOs), even when the programs serve vastly different numbers of capitated enrollees.
- The use of denominators such as PMPY or per 1,000 members per year converts very tiny numbers (usually fractions) into larger (usually whole) numbers. Most people are able to grasp the relationships among whole numbers more easily than the relationships among fractions.
- Most capitation payments (revenues) are made on the basis of a specified amount PMPM. Expressing costs in similar terms facilitates meaningful analysis of financial conditions.

CANC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT									
CAPTATION PROFILE									
Page One of One									
Report #1									
PERIOD COVERED BY REPORT:									
DATE REPORT PREPARED:									
		CURRENT PERIOD	YEAR TO DATE	CAPTATION TARGET	VARIANCE %				
AFDC MEDICAID	Number Of Member Months								
	Capitation Revenue PMPM 1/								
	Reinsurance Revenue PMPM								
	COB/TPL Revenue PMPM								
	Administrative Cost PMPM 3/								
Marketing Costs PMPM									
Cost Of Care PMPM									
Total Cost PMPM									
Gain Or Loss PMPM									
Report #2									
CANC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT									
INDIVIDUAL PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE									
Page One of One									
PRIMARY CARE PROVIDER NAME:									
PRIMARY CARE PROVIDER NUMBER:									
PRIMARY CARE PROVIDER CATEGORY:									
PERIOD COVERED BY REPORT:									
DATE REPORT PREPARED:									
		YOUR YEAR-DATE	CATEGORY AVERAGE YEAR-DATE	YOUR CURRENT	CATEGORY AVERAGE CURRENT				
OTHER MEDICAID	Number Of Months								
	Capitation Revenue PMPM 1/								
	Reinsurance Revenue PMPM								
	COB/TPL Revenue PMPM								
	Administrative Cost PMPM 3/								
Marketing Costs PMPM									
Cost Of Care PMPM									
Total Cost PMPM									
Gain Or Loss PMPM									
Report #3									
CANC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT									
AGGREGATE PRIMARY CARE PROVIDER (PCP) UTILIZATION PROFILE									
Page One Of Two									
PERIOD COVERED BY REPORT:									
DATE REPORT PREPARED:									
		CURRENT PERIOD	YEAR TO DATE THIS YEAR	YTD SAME PERIOD LAST YEAR	ANNUAL TARGET THIS YEAR	VARIANCE THIS YEAR %			
MEDICAID	Number Of Months								
	Capitation Revenue PMPM 1/								
	Reinsurance Revenue PMPM								
	COB/TPL Revenue PMPM								
	Administrative Cost PMPM 3/								
Marketing Costs PMPM									
Cost Of Care PMPM									
Total Cost PMPM									
Gain Or Loss PMPM									
Report #4									
CANC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT									
PREPAYMENT SYSTEM PERFORMANCE									
Page One of One									
PERIOD COVERED BY REPORT:									
DATE REPORT PREPARED:									
		CURRENT PERIOD	YEAR TO DATE	PERFORMANCE TARGET	VARIANCE %				
COMMERCIAL	Number Of Months								
	Premium Revenue PMPM 1/								
	Reinsurance Revenue PMPM								
	COB/TPL Revenue PMPM								
	Administrative Cost PMPM 3/								
Marketing Costs PMPM									
Cost Of Care PMPM									
Total Cost PMPM									
Gain Or Loss PMPM									
Report #5									
CANC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT									
SPECIALTY CARE (SC) SERVICES									
Page One of One									
PERIOD COVERED BY REPORT:									
DATE REPORT PREPARED:									
		CURRENT PERIOD	YEAR TO DATE THIS YEAR	YTD SAME PERIOD LAST YEAR	ANNUAL TARGET THIS YEAR	VARIANCE THIS YEAR %			
OUTSIDE ANCELLARY	Number Of Months								
	Capitation Revenue PMPM 1/								
	Reinsurance Revenue PMPM								
	COB/TPL Revenue PMPM								
	Administrative Cost PMPM 3/								
Marketing Costs PMPM									
Cost Of Care PMPM									
Total Cost PMPM									
Gain Or Loss PMPM									
Report #6									
CANC CRITICAL PERFORMANCE MEASURES FOR PREPAYMENT									
SPECIALTY CARE (SC) SERVICES									
Page One of One									
PERIOD COVERED BY REPORT:									
DATE REPORT PREPARED:									
		CURRENT PERIOD	YEAR TO DATE	PERFORMANCE TARGET	VARIANCE %				
PUBLIC/STAFF RELATIONS	Number Of Months								
	Capitation Revenue PMPM 1/								
	Reinsurance Revenue PMPM								
	COB/TPL Revenue PMPM								
	Administrative Cost PMPM 3/								
Marketing Costs PMPM									
Cost Of Care PMPM									
Total Cost PMPM									
Gain Or Loss PMPM									

SELECTING A BENCHMARK FOR COMPARISON

In a vacuum, data are rarely useful. Data become useful when comparing what has been planned (e.g., budgets, actuarial assumptions) to typical results (e.g., averages, medians) or to what has occurred over time (trends). For this reason, all four CPM reports contain a means of comparing performance results to a standard:

- **The Capitation Profile** converts all data to its value per member per month and then compares the results for the current period and the period year to date with the expected annual capitation target. The difference between the current and year-to-date PMPM figures is a variance. The level of detail that will be possible here will depend on the amount of specificity in the capitation contract and/or in the C/MHC's internal budgeting and planning document.

For example, the C/MHC might have contracted for a total cost PMPM for AFDC recipients of \$XX.00. It then might have budgeted 0.15 percent \$XX.00 for administrative costs. Both of these numbers (\$XX.00 and 0.15 percent of \$XX.00) would appear in the column labeled "Capitation Target."

- **The Aggregate Primary Care Provider Utilization Profile** makes two important comparisons. First, it compares year-to-date data to the annual target for the same year. Second, it compares current year-to-date data with year-to-date data as of the same period in the prior fiscal year. This analysis shows trends over time. It is a useful measure of relative performance after the C/MHC has stabilized; during dynamic periods, the measure will provide a quantitative reflection of changes in performance. For example, this report might show that the cost of PCP physician encounters PMPM is higher than planned for the year-to-date period, even though it is lower than the cost during the prior year.
- **The benchmark suggested for the Individual Primary Care Provider Utilization Profile** is based on the assumption that the C/MHC will not have detailed performance targets for each provider. This being the case, a relatively easy way to quickly review each provider's utilization profile is by comparing it to the profile of the peer group. Thus, the horizontal axis of the Individual PCP Utilization Profile compares the year-to-date and current performance of each provider with the year-to-date and current performance of the average similar provider. In making these comparisons, keep in mind that (1) normative behavior is not necessarily desirable and (2) there may be bona fide management and clinical reasons for performance variances.

The critical performance measures on the Individual PCP Utilization Profile simply provide an indication that performance by one provider is different (not worse or better) than performance of the group as a whole. The reasons for such differences must be ascertained before deviations can be described as problematic. Managers might refer to Individual PCP Utilization Profile data on number of hours worked and number of PCP encounters in the period and per hour to partly explain why one provider's costs per encounter are higher or lower than another's. Or, managers and medical directors might consult medical records to uncover clinical reasons for interpeer group variation.

For example, the average cost per encounter for provider A might be 15 percent higher than the average. A review of the medical records might reveal that this provider tended to see older patients, whose cases were more complicated and required special diagnostic laboratory work.

- **Prepayment System Performance** compares current and year-to-date performance to the established performance target. For instance, the C/MHC might set a goal of "not more than 30 minutes" for appointment waiting and then measure how well it achieved this goal.

TIMING CPM REPORT PREPARATION

Time is of the essence in preparing and analyzing CPM reports. Each C/MHC will have to strike a balance between the need for timely information and its ability to make time for report preparation and analysis. Over time, access to accurate and timely information should help the C/MHC operate its prepayment program more productively, freeing up resources for this essential management function.

Although periodicity is a management decision that each C/MHC must make, it usually is wise to produce Capitation Profiles and Aggregate PCP Utilization Profiles monthly. These should be produced within 20 days of the close of each month. Individual PCP Utilization Profiles and the report of Prepayment System Performance will still be very useful if produced quarterly.

Time is also a reporting issue for these reasons:

- **Comparability of Cost and Utilization Data For A Given Reporting Period:** The CPM reporting system must be based on a full accrual accounting system, so that utilization reported for period X can be correlated to actual costs of providing services during the same period.
- **Claims Lag Liability Management:** Accrual accounting in a prepayment environment is greatly complicated by lagging claims from outside service providers.³ C/MHCs may not know that a referral service has been utilized, nor how much it cost, until the claim arrives from the referral specialist or ancillary service. Specialists and ancillary providers sometimes do not issue a claim for many months after the service is rendered. This creates a large unknown liability for the C/MHC, and more than one otherwise sophisticated HMO has failed when incurred but not reported (IBNR) claims finally rose to the surface. A system for monitoring authorized referrals to outside providers, and then for estimating IBNRs, is essential to the survival of a C/MHC operating in a prepayment environment.

³Readers are referred to *Claims Liability Management In Health Maintenance Organizations*, available from Birch & Davis Associates, Inc., 8905 Fairview Road, Silver Spring, Maryland 20910, 301-589-6760.

SECTION 3:
EXPLANATION OF PREPAYMENT TERMS

Annual Target This Year: Appearing on the Aggregate PCP Utilization Profile, this is the utilization level or cost for each type of service (e.g., PC Non-Physician Encounters, X-Rays). Ideally, this target stems directly from the actuarial and budget calculations used to compute the capitation rate. If the capitation rate is not based on specific calculations, the C/MHC will have to develop after-the-fact operating assumptions for each type of service.

For example, the capitation rate might be based on the following utilization assumptions:

- 4.0 Primary Care Physician Encounters Per Member Per Year
(PMPY, see below for explanation of PMPY)
- 1.0 Primary Care Non-Physician Encounters PMPY
- 2.5 In-House Laboratory Procedures PMPY
- 0.7 In-House X-Rays PMPY
- 4.0 In-House Prescriptions PMPY

... and so on. These assumptions serve as annual targets for utilization for the year.

Similarly, the capitation rate might be based on the following cost assumptions:

- \$31.50 Average Cost Per Primary Care Physician Encounter
- \$18.25 Average Cost Per Primary Care Non-Physician Encounter
- \$14.50 Average Cost Per In-House Laboratory Procedure
- \$70.00 Average Cost Per In-House X-Ray
- \$12.00 Average Cost Per In-House Prescription

... and so on. These assumptions serve as annual targets for cost per unit for the year.

Finally, if the capitation rate is based on specific utilization and cost assumptions for each type of service, it will (arithmetically) be based on assumptions about the cost for each type of service per member per month (PMPM).

$$\text{COST PMPM} = \frac{(\# \text{PMPY}) \times (\text{AC})}{12}$$

Where:

#PMPY = The number of services, by type of service, expected per member per year

AC = The average cost per type of service during the year

Example:

$$\begin{array}{l} \text{COST PMPM} \\ \text{PCP Services} \end{array} = \frac{(4.0 \text{ PMPY}) \times (\$31.50 \text{ Average Cost})}{12} = \$10.50 \text{ PMPM}$$

Capitation: The amount of fee or payment (usually annual) received per person to cover the costs of services included in the benefit plan (i.e., the revenue "per head"). The term also is used to mean the costs per capita ("per head"). Thus, the word "capitation" is best used in conjunction with the term "revenue" or "cost," as in "capitation revenue" or "capitation cost."

Capitation Target: Appearing on the Capitation Profile, the capitation target is both the "revenue target" and the "cost target" per member per month, as budgeted in the C/MHC's contract to provide prepaid services or in the C/MHC's detailed operating budget. This number is derived by one of these methods:

$$\begin{aligned} &\text{Annual Cost of Care Per Member Per Year, By Service Type} \\ &\quad + \\ &\text{Annual Cost of Care PMPY For All Other Service Types} = \text{Costs of Care PMPM} \\ &\quad + \\ &\frac{\text{Annual Marketing/Administration Costs PMPY}}{12} \end{aligned}$$

or

$$\frac{\text{Annual Total Estimated Costs of Care}}{\text{Annual Total Estimated Member Months}} = \text{Costs of Care PMPM}$$

or

$$\frac{\text{Estimated Costs Per Member Per Year}}{12} = \text{Costs of Care PMPM}$$

The capitation target also means the number of targeted member months (i.e., the level of sales on which the C/MHC's capitation revenue (premium price) is based).

Coordination of Benefits (COB): Appearing on the Capitation Profile, COB stands for coordination of benefits. The COB process involves recovering expenses from another insurance company which also has an obligation to a particular prepayment enrollee. For instance, a Medicaid enrollee may have some employment related health insurance (e.g., through Blue Cross). Further, the C/MHC may have commercial prepayment enrollees with insurance coverage that supplements the C/MHC prepayment program. The National Association of Insurance Carriers (NAIC) publishes rules governing COB procedures; these are followed by virtually all insurance companies. Revenues collected on behalf of prepayment enrollees act as a source of revenue (additional to premium revenue) for those enrollees.

Emergency Room (ER) Visits: Appearing on the Aggregate PCP Utilization Profile, ER stands for hospital emergency room visits. It includes visits for true emergencies, as well as visits for primary care. Excessive utilization of the hospital ER for primary care, when use of C/MHC physician services might be more appropriate and cost-effective, might be expensive to the C/MHC (if the C/MHC is at risk for ER care) and might be a cause of financial shortfalls.

Managed Care: A reasonably new "art term," managed care is a form of medical and health insurance designed to ensure that medically necessary services, and only medically necessary services, are provided in the most cost-effective manner possible to sustain the patient's health and well-being.

Managed care programs establish a network of health care services (e.g., health maintenance organization, preferred provider organization, or prepayment contract with C/MHC) from which services are provided. This system of care usually designates a single primary care provider (a physician or specially trained nurse or physician's assistant) to be responsible for coordinating and managing all services required by assigned patients. Normally, preadmission certification and concurrent review is required for all hospital care.

Member Months: Appearing on the Capitation Profile, actual member months is a count of the number of prepayment enrollees in the current month. Actual member months year to date is a count of the prepayment enrollees in the current month, plus the number of prepayment enrollees in each of the completed months of the fiscal year. The capitation target for member months is the expected number of member months for the period year to date (e.g., by June, the C/MHC expected to have experienced 75 member months in June, plus 75 member months in each of the preceding five months, for a total of 450 member months target to date).

By reducing many financial and utilization statistics to the basis of "per member per month" (see below), the C/MHC can facilitate the most meaningful inter-data element comparisons.

While a simple concept, actually counting member months can be complex. This is because members sometimes retroactively enroll or disenroll. Members who appear to be a bona fide part of the "head count" at the end of month X might actually have disenrolled during month X. Conversely, some members who enrolled during month X might not appear on the C/MHC's roster until month X+1.

Most prepayment programs address this problem by counting member months in a consistent manner, so that all counts contain errors in the same direction and to the same extent (i.e., the errors even out over time). Specifically, select a particular data source and establish a cut-off time (say, five days after the close of the month). In tallying the member months for the designated period, include anyone still "enrolled" as of the date and do not count anyone not officially "enrolled" as of that date. More refined tallies can be performed at the end of each quarter or at the end of the year.

Outpatient Department (OPD) Visits: Appearing on the Aggregate PCP Utilization Profile, OPD stands for hospital outpatient department. Excessive utilization of the hospital OPD, when use of C/MHC physician services might be more appropriate and cost-effective, might be expensive to the C/MHC (if the C/MHC is at risk for OPD care) and might be a cause of financial shortfalls.

Per Encounter (PE): A visit by a single enrollee with a specific provider, regardless of the number of procedures or individual services provided. For example, patient X visits physician A and receives a consultation, a prescription, and an X-ray. This is one encounter.

Per 100 Provider Encounters (/100 PE): Appearing on the Individual PCP Utilization Profile, a statistical means of observing the number of occurrences (e.g., of X-rays) per 100 encounters (see "Per Encounter" above). This technique is used when the number of occurrences *per encounter* is small. For example, the C/MHC might expect:

0.175 X-rays per encounter (meaning that about 1.75 in a hundred encounters will involve an X-ray)

... which is the same as...

17.5 X-rays per 100 provider encounters

Use of the larger number (usually greater than one), instead of a fraction, facilitates analysis.

Per 1,000 Members Per Year (/1,000 MPY): Appearing on the Aggregate PCP Utilization Profile, a statistical means of observing the number of occurrences. This technique is used most often in connection with rare occurrences (such as hospitalization). For example, the C/MHC might expect:

0.0333 days of hospitalization per member per month

... which is the same as...

396 days of hospitalization per 1,000 members per year

Use of the larger number, instead of the fraction, facilitates analysis.

Per Member Per Month: Appearing on the Capitation Profile and the Aggregate PCP Utilization Profile, this is the most commonly used statistical technique used to measure various aspects of prepayment programs. Capitation revenue and costs are most commonly expressed as a cost per member per month, meaning:

- **Cost per member per month:** The amount of money required to cover all medical, administrative, and marketing costs associated with a single member, for a single month. This cost should be slightly less than (and certainly not higher than) the revenue *per member per month*.

- **Revenue per member per month:** The amount of money earned to cover all medical, administrative, and marketing costs associated with a single member, for a single month. The revenue includes the premium (capitation amount) and, in some cases, revenue from coordination of benefits and third-party liability.

Per Member Per Year (PMPY): Appearing on the Aggregate PCP Utilization Profile and on the report on Prepayment System Performance, this is a statistical technique similar to PMPM. It is used to measure routine service occurrences (in contrast to per 1,000 members per year, which is used to measure rare occurrences). For example, the C/MHC might expect:

0.0333 days of hospitalization per member per month

... which is the same as...

0.4 days of hospitalization per member per year

Use of the larger number, instead of the fraction, facilitates analysis.

Performance Target: Appearing on the report on Prepayment System Performance, performance targets express various operating goals of the C/MHC prepayment program. The C/MHC might expect that if it meets its performance targets it has a greater chance of achieving success in the prepayment program than if it does not meet its targets.

Primary Care Provider (PCP): Physicians and other providers who are in the position of causing services to be utilized (e.g., "gatekeepers"). This might include pediatric nurse practitioners, nurse midwives, mental health counselors, and similar professional staff.

Primary Care Provider Category: Primary care provider (PCP) categories are the "specialties" or practice types of PCPs. For example, physician PCPs might be categorized as internists, general practitioners, family practitioners, and pediatricians. Depending on the size of the C/MHC provider contingent, it will be useful to categorize providers so that statistical analyses reflect appropriate distinctions between expected utilization by providers in different categories. For example, the C/MHC might expect the practice patterns of pediatricians to differ significantly from the practice patterns of internists.

Staff Turnover: Appearing on the report of Prepayment System Performance, staff turnover is a measure of staff stability. Staff turnover is expressed as a percent of the full-time positions vacated on an annual basis. For example, if 10 out of 100 staff terminate their employment (or are terminated by the C/MHC) during the year, the C/MHC has a turnover rate of 10 percent.

Third-Party Liability (TPL): Appearing on the Capitation Profile, TPL stands for third-party liability. A third party (i.e., not the enrollee, who is the first party, nor the C/MHC, which is the second party) is responsible for the cost of health care in a particular instance. This might occur, for example, when a C/MHC enrollee is involved in a work-related accident for which the State Workers' Compensation Program is financially responsible. Automobile accident cases often frequently have a TPL aspect, when either the enrollee's automobile insurance or the automobile insurance of the at-fault party to the crash will cover the costs of care.

C/MHCs should investigate all accidental injury cases involving prepayment program enrollees to determine if they are work related or the result of an insured automobile accident. If they are, the C/MHC should bill the third party for the cost of all services incurred at the C/MHC, as well as for the cost of all referral and hospitalization care (to the extent that hospitalization costs are borne by the C/MHC).

Waiting Time For Appointments: Appearing on the report of Prepayment System Performance, this is the elapsed time between the date the appointment is requested and the date of service. For example, if an enrollee seeks an appointment on July 1 and cannot obtain an appointment until July 10, this is a nine-day waiting time. This is an important measure of access to health services and a predictor of enrollee satisfaction with the prepayment program.

Waiting Time Upon Arrival: Also appearing on the report of Prepayment System Performance, this is the elapsed time between a patient's scheduled "check-in" time at a reception or waiting area and the time at which the patient is first seen by the physician or non-physician provider. For example, a patient arriving on time in the reception area at 10:00 a.m. and seen by a nurse at 10:15 a.m. experiences a Waiting Time Upon Arrival of 15 minutes. This is an important predictor of enrollee satisfaction with the prepayment program and, also, an indicator of the efficiency of the scheduling system. If waiting times are too short, it might indicate idle capacity. If they are too long, it might signal enrollee dissatisfaction and, eventually, disenrollment.



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